

Claims

What is claimed is:

1. A process for making a ceramic armor plate, comprising:
 - affixing a plurality of ceramic armor tiles side by side to form a fixed layer of ceramic armor tiles having a known two-dimensional size; and,
 - using an abrasivejet cutter, cutting continuously through at least two adjacent ceramic armor tiles of the affixed layer of ceramic armor tiles, so as to delineate a portion of a ceramic armor plate, the ceramic armor plate having a two-dimensional size that is smaller than the known two-dimensional size.
2. A process according to claim 1, comprising prior to cutting continuously through at least two adjacent ceramic armor tiles, affixing the fixed layer of ceramic armor tiles to a backing element with an adhesive.
3. A process according to claim 2, wherein cutting continuously through at least two adjacent ceramic armor tiles of the fixed layer of ceramic armor tiles includes cutting through a corresponding portion of the backing element affixed thereto.
4. A process according to claim 1, wherein affixing a plurality of ceramic armor tiles side by side to form a fixed layer of ceramic armor tiles having a known two-dimensional size comprises applying an adhesive between adjacent ceramic armor tiles of the plurality of ceramic armor tiles.
5. A process according to claim 3, wherein the ceramic armor plate having a two-dimensional size that is smaller than the known two-dimensional size is selected from a plurality of ceramic armor plates each having a same two-dimensional size that is smaller than the known two-dimensional size, each ceramic armor plate of the plurality of ceramic armor plates being nested within a same fixed layer of ceramic armor tiles.

6. A process according to claim 3, wherein the ceramic armor plate having a two-dimensional size that is smaller than the known two-dimensional size is selected from a plurality of ceramic armor plates, at least some of which having a different two-dimensional size that is smaller than the known two-dimensional size, each ceramic armor plate of the plurality of ceramic armor plates being nested within a same fixed layer of ceramic armor tiles.
7. A process according to claim 3, wherein cutting continuously through at least two adjacent ceramic armor tiles of the affixed layer includes cutting continuously along a straight path through at least two adjacent ceramic armor tiles of the affixed layer.
8. A process according to claim 3, wherein cutting continuously through at least two adjacent ceramic armor tiles of the affixed layer includes cutting continuously along a curved path through at least two adjacent ceramic armor tiles of the affixed layer.
9. A process according to claim 1, wherein each ceramic armor tile of the plurality of ceramic armor tiles is approximately four inches by four inches.
10. A process according to claim 1, wherein each ceramic armor tile of the plurality of ceramic armor tiles is approximately three inches by three inches.
11. A process for making a ceramic armor plate, comprising:
 - providing a backing element having a known two-dimensional size;
 - placing a plurality of ceramic armor tiles side by side to form a layer of ceramic armor tiles;
 - affixing the layer of ceramic armor tiles to the backing element with an adhesive; and,
 - using an abrasivejet cutter, cutting continuously through at least two adjacent ceramic armor tiles of the affixed layer of ceramic armor tiles and through a corresponding portion of the backing element affixed thereto, so as to delineate a portion of a ceramic armor plate, the ceramic armor plate having a two-dimensional size that is smaller than the known two-dimensional size of the backing element.

12. A process according to claim 11, wherein the ceramic armor plate having a two-dimensional size that is smaller than the known two-dimensional size is selected from a plurality of ceramic armor plates each having a same two-dimensional size that is smaller than the known two-dimensional size, each ceramic armor plate of the plurality of ceramic armor plates being nested within a same fixed layer of ceramic armor tiles.

13. A process according to claim 11, wherein the ceramic armor plate having a two-dimensional size that is smaller than the known two-dimensional size is selected from a plurality of ceramic armor plates, at least some of which having a different two-dimensional size that is smaller than the known two-dimensional size, each ceramic armor plate of the plurality of ceramic armor plates being nested within a same fixed layer of ceramic armor tiles.

14. A process according to claim 11, wherein cutting continuously through at least two adjacent ceramic armor tiles of the affixed layer includes cutting continuously along a straight path through at least two adjacent ceramic armor tiles of the affixed layer.

15. A process according to claim 3, wherein cutting continuously through at least two adjacent ceramic armor tiles of the affixed layer includes cutting continuously along a curved path through at least two adjacent ceramic armor tiles of the affixed layer.

16. A process according to claim 1, wherein each ceramic armor tile of the plurality of ceramic armor tiles is approximately four inches by four inches.

17. A process according to claim 1, wherein each ceramic armor tile of the plurality of ceramic armor tiles is approximately three inches by three inches.